ADEM
Alabama Department of Environmental Management

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: KEMIRA CHEMICALS, INCORPORATED

FACILITY NAME: KEMIRA CHEMICALS, INCORPORATED

LOCATION: MOBILE, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
503-5007-X001	Specialty Chemicals Unit Including Railcar Loading/Unloading Stations, Tank Truck Loading/Unloading Stations, Packaging Stations, Bio-Acrylamide Production Unit, and Associated Storage Tanks.

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 ***(2006 Rplc. Vol. and 2007 Cum. Supp.)*** *(the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15* ***(2006 Rplc. Vol. and 2007 Cum. Supp.),*** *and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

ISSUANCE DATE: To Be Determined

Alabama Department of Environmental Management

KEMIRA CHEMICALS, INCORPORATED
MOBILE, ALABAMA
(PERMIT NO. 503-5007-X001)
PROVISOS

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.

3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.

4. Each point of emission for the new air pollution control equipment (scrubbers) will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised. All existing equipment will have sampling ports, ladders, platforms, and other safety equipment to facilitate testing installed upon the request of the Department.

5. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shutdown as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events **that exceed 4 hours** within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.

6. This process, including all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

7. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **4 hours**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.

8. This process, including all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

9. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.

10. On completion of construction of the device for which this permit is issued, written notification of the fact is to be given to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

11. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.

12. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

13. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.

14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

    To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

    (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.

    (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).

    (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.

(d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

15. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants. Written tests results are to be reported to the Air Division within 30 days of completion of testing.

Particulate Matter.....( )	Carbon Monoxide..... ..( )
Sulfur Dioxide.....( )	Nitrogen Oxides..... ..( )
Volatile Organic Compounds (X)	Visible Emissions.....( )
Acrylic Acid.....(X)	HAPs.....(X)
Acrylonitrile.....(X)	
Acrylamide.....(X)	

16. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

17. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

18. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

19. This process shall be operated at all times in a manner so as to minimize the emission of air contaminants. Procedures for ensuring that the process is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

20. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

21. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

22. Facility wide emissions of VOC, NO_x, CO, SO_2, PM, Individual HAPs, and Total HAPs shall not exceed the limits listed below in any consecutive rolling 12 month period utilizing Emissions Master software, or an equivalent software approved by the Department in advance.

    (1) 96.0 tons per year of volatile organic compounds (VOC)

    (2) 90.0 tons per year of nitrogen oxides (NO_x)

    (3) 90.0 tons per year of carbon monoxide (CO)

    (4) 90.0 tons per year of sulfur dioxide (SO_2)

    (5) 9.0 tons per year of any individual Hazardous Air Pollutant (HAP)

    (6) 18.0 tons per year of Total HAPs

    (7) 90.0 tons per year of particulate matter (PM)

    If the emission of these pollutants exceeds any of the above limits, the Department shall be notified in writing within 10 days of the exceedance.

23. The minimum scrubber flow for each scrubber shall be used to indicate compliance for limiting VOC, acrylonitrile, acrylic acid, and acrylamide emissions. These flowrates shall be recorded by electronic historian recording values at least once every 15 minutes, with daily averages of the determined flowrate or greater to indicate compliance.

24. The minimum scrubber flowrates for each scrubber shall be determined once construction and testing are completed. When the flowrates has been determined, the scrubbers shall comply with the rest of the requirements in proviso 23.

25. A written report summarizing the calculated emissions of VOC, NO_x, CO, SO_2, Individual HAPs, and Total HAPs shall be submitted to this Department by the last day of the month following the end of each calendar quarter in a format approved by the Department in advance. Each report should include the following information:

    (a) The monthly emissions of VOC, NO_x, CO, SO_2, Individual HAPs and Total HAPs associated with each individual unit (eg. Utilities, Specialty Chemicals, etc) during the quarter.

(b) The rolling 12-month cumulative total of emissions of VOC, NO_x, CO, SO_2, Individual HAPs and Total HAPs for each month in the reporting period.

26. Accurate and understandable records of the basis of all calculations utilized in Emissions Master (or other approved emission software) shall be maintained in a permanent form suitable for inspection and be available immediately for at least the last 2 years. Any changes in the calculation methods utilized by Emissions Master (or other approved software) shall be reported to the Department for review with a justification for the change.

27. The facility shall maintain a complete list of all products produced in the specialty chemicals unit suitable for immediate inspection. Any modifications to the product list shall be submitted to the Department for review and shall include emission estimates, any new HAP emitted, and regulatory applicability. Approval must be received from the Department before any new product not previously approved for this unit can be produced in this unit.

28. The facility shall maintain a complete list of all products produced in the bio-acrylamide (BIO AMD) production unit suitable for immediate inspection. Any modifications to the product list shall be submitted to the Department for review and shall include emission estimates, any new HAP emitted, and regulatory applicability. Approval must be received from the Department before any new product not previously approved for this unit can be produced in this unit.

29. The facility shall maintain a complete list of all storage tanks associated with the specialty chemicals unit suitable for immediate inspection. Any modifications to an existing storage tank (new material to be stored) or the construction of any new storage tanks shall be submitted to the Department for review and shall include emission estimates, any new HAP emitted, and regulatory applicability. Approval must be received from the Department before any new material may be stored in an existing storage tanks or a new storage tank may be placed into service.

30. The facility shall maintain a complete list of all chemical transfer stations (rail, truck, drumming) associated with the specialty chemicals unit and all products that can potentially be transferred from this equipment suitable for immediate inspection. Any modifications to an existing transfer station (new material to be transferred) or the construction of any new transfer station shall be submitted to the Department for review and shall include emission estimates, any new HAP emitted, and regulatory applicability. Approval must be received from the Department before any new material may be transferred in an existing transfer station or a new loading/unloading station may be placed into service.

31. The facility shall maintain a complete list of all reactors associated with this unit. Any modifications, as defined by ADEM in ACC 335-3-1-.02(1)(oo), to an existing reactor or the construction of a new reactor shall be submitted to the Department for approval prior to implementation.

32. The Bio-acrylamide (BIO AMD) production unit is subject to the New Source Performance Standards for the Standard of Performance for Equipment Leaks of VOC in Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2007 (NSPS, Subpart VVa). Kemira would be required to identify all specified equipment in this subpart that operates in light liquid service, heavy liquid service, and/or gas/vapor service. Kemira would comply the referenced test method and procedures stated in 40 CFR 60.485(a), recordkeeping requirements in 40 CFR 60.486(a), and the reporting requirements in 40 CFR 60.487(a).

33. The New Source Performance Standards for Volatile Organic Liquid (VOL) Storage Vessels (NSPS, Subpart Kb) applies to storage tanks TA-01-1106 and TA-01-1107. Both of these storage tanks shall store a VOL with a true vapor pressure less than 2.17 psia.

To Be Determined
Date

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SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: KEMIRA CHEMICALS, INCORPORATED

FACILITY NAME: KEMIRA CHEMICALS, INCORPORATED

LOCATION: MOBILE, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
503-5007-X022	Emergency Generators and Emergency Fire Pump. Generator (Admin/Guard 94 HP) (U29) – Natural Gas Fired Generator (762 HP) (U31) – Diesel Fired Fire Pump (240 HP) (U30) – Diesel Fired

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 ***(2006 Rplc. Vol. and 2007 Cum. Supp.)*** *(the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15* ***(2006 Rplc. Vol. and 2007 Cum. Supp.),*** *and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.*

ISSUANCE DATE: To Be Determined

Alabama Department of Environmental Management

KEMIRA CHEMICALS, INCORPORATED
MOBILE, ALABAMA
(PERMIT NO. 503-5007-X022)
PROVISOS

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.

3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.

4. Upon the request of the Department, each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

5. This process, including all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

6. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.

7. On completion of construction of the device for which this permit is issued, written notification of the fact is to be given to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

8. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.

9. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

10. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.

11. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

    To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

    (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.

    (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).

    (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.

    (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

    A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

    All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

12. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

13. These emergency generators and emergency fire pump are authorized to fire the following fuels:

    Generator (Admin/Guard 94 HP) (U29) – Natural Gas Fired and Propane (as an alternative)
    Generator (762 HP) (U31) – Diesel Fired
    Fire Pump (240 HP) (U30) – Diesel Fired

14. These generators and fire pump are limited to 100 hours per year of maintenance checks and readiness testing. These generators and fire pump may also operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. Records shall be kept of the hours of operation for these generators and fire pumps.

15. These new generator (U31) and existing fire pump (U30) are subject to the New Source Performance Standards, (NSPS) for Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII. The new generator is not subject to the initial notification of this subpart. Both engines would be limited to 100 hours per year of maintenance checks and readiness testing and will each be equipped with a non-resettable hour meter. The emission standard for these engines are as follows:

Source	Type	Standard
Generator (762 HP) (U31)	generator	Table 1 (per 40 CFR 60.4205(a))
Fire Pump (240 HP) (U30)	fire pump	Table 4 (per 40 CFR 60.4205(c))

16. The existing generator (U29) is subject to the New Source Performance Standards, (NSPS) for Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ. All engines would be limited to 100 hours per year of maintenance checks and readiness testing and will each be equipped with a non-resettable hour meter. The emission standard for these engines are as follows:

Source	Type	Standard
Generator (Admin/Guard 94 HP) (U29)	generator	40 CFR 90.103 (per 40 CFR 60.4231)

17. The new generator (U31) is subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ. This engine is not subject to the initial notification of this subpart. This engine would be equipped with a non-resettable hour meter. The emission standard for this engines is as follows:

Source	Type	Standard
Generator (762 HP) (U31)	generator	No numerical limit

It is noted that this emergency generator (U31) is subject to the RICE MACT (40 CFR 63 Subpart ZZZZ) but would meet the RICE MACT requirements by meeting the requirements of 40 CFR 60, Subpart IIII as stated in proviso number 15.

18. These records will be kept in a permanent form suitable for inspection and will be retained for at least two years.

19. This process shall be operated at all times in a manner so as to minimize the emission of air contaminants. Procedures for ensuring that the process is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

20. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

21. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

22. Facility wide emissions of VOC, NO_x, CO, SO_2, PM, Individual HAPs, and Total HAPs shall not exceed the limits listed below in any consecutive rolling 12 month period utilizing Emissions Master software, or an equivalent software approved by the Department in advance.

    (1) 96.0 tons per year of volatile organic compounds (VOC)

    (2) 90.0 tons per year of nitrogen oxides (NO_x)

    (3) 90.0 tons per year of carbon monoxide (CO)

    (4) 90.0 tons per year of sulfur dioxide (SO_2)

    (5) 9.0 tons per year of any individual Hazardous Air Pollutant (HAP)

    (6) 18.0 tons per year of Total HAPs

    (7) 90.0 tons per year of particulate matter (PM)

    If the emission of these pollutants exceeds any of the above limits, the Department shall be notified in writing within 10 days of the exceedance.

23. A written report summarizing the calculated emissions of VOC, NO_x, CO, SO_2, Individual HAPs, and Total HAPs shall be submitted to this Department by the last day of the month following the end of each calendar quarter in a format approved by the Department in advance. Each report should include the following information:

    (a) The monthly emissions of VOC, NO_x, CO, SO_2, Individual HAPs and Total HAPs associated with each individual unit (eg. Utilities, Specialty Chemicals, etc) during the quarter.

    (b) The rolling 12-month cumulative total of emissions of VOC, NO_x, CO, SO_2, Individual HAPs and Total HAPs for each month in the reporting period.

24. Accurate and understandable records of the basis of all calculations utilized in Emissions Master (or other approved emission software) shall be maintained in a permanent form suitable for inspection and be available immediately for at least the last 2 years. Any changes in the calculation methods utilized by Emissions Master (or other approved emission software) shall be reported to the Department for review with a justification for the change.

To Be Determined
Date